

Global Content Fair Roundtable Discussion

Polar Routeing ~ From Discussion to Operation ~

On Thursday, May 14, a Roundtable Discussion entitled “Polar Routeing - From Discussion to Operation,” was held at the Weathernews Global Center.

At this 5th roundtable, not only the background of Polar Routeing was discussed, but also the progress and operation of Ice Routeing, a support service for the Sakhalin 2 Project, was also presented. The panelist, Captain Seike of MOL LNG, the captain of an LNG carrier, also told of his actual experiences navigating the icy seas.

Ice Routeing : The First Step toward Polar Routeing

In the past four Roundtable Discussions, the feasibility and effectiveness of Polar Routeing had been talked about. Polar Routeing took its first quiet step toward realization in the form of Ice Routeing Service on the Sea of Okhotsk.

Besides the Arctic Ocean, there are also other seas affected by sea ice on the earth, and there are many vessels operating in these areas. The Sakhalin 2 Project is a large scale petroleum and natural gas resource development effort in Sakhalin, Russia. Ice Routeing is a service which supports the safe passage of vessels carrying LNG (Liquid Natural Gas) to Japan through the icy seas. Ice Routeing has many issues in common with Polar Routeing, and this was an excellent stage to try and evaluate the service.

Actual Needs as Experienced by Captains

“LNG carriers are sensitive to meteorological and oceanography factors. When navigating through icy seas, information on not only wind, waves, swell and the size, location and thickness of sea ice, but also air temperature, sea temperature and snowfall information are also important. If the sea temperature is low, then the sea water in the ballast tank may freeze. Snowfall reduces visibility, making it difficult to safely navigate the vessel.”

“In order to make decisions on icy seas, high resolution data, on the order of 500 meters, is essential.”

The actual experiences of Captain Seike, who was an essential part of Ice Routeing Service provided this past winter, helped to define various issues that were not seen during the desk planning



stage.

“The time has come to shift from strategic route selection to a tactical route selection to support the safe navigation of vessels in icy seas (M. Ogata, WNI).”

Working Toward Tactical Route Selection

Weathernews has plans to launch its own satellite in 2010, in order to support the safe navigation of vessels. The camera on the satellite has a resolution of 500 meters. In order to make the distinguishing between clouds and ice less difficult, visible and infrared cameras will be used.

“It is our mission to build a satellite to meet specific needs (Dr. Yamamoto, WNI).”

In addition, Eye-Servation data(※) will also be beneficial.

“In order to fully understand the current situation, Eye-Servation data from Captains who are operating vessels in the area will help to increase the accuracy of our information (D. Abe, WNI).”

When navigating in hazardous sea ice conditions, Captains have a strong feeling that they want to share their experiences for vessels behind them. If Eye-Servation data is accumulated, it is useful for those who come later.

250 voyages are undertaken per year in the Sakhalin 2 Project. In this first effort at transporting LNG through icy seas, the greatest value is in Captains and Operators

sharing their hands-on experiences.

Ice Routeing and Polar Routeing are global themes that, if tackled globally, can be realized in a short time.

“We began with the idea of How Wonderful it could be to realize this, and then discussed How Much and How Realistic, through these Roundtable Discussions. The discussions have now reached the operational stage, and Weathernews would like to continue sharing our progress on this front (H. Ishibashi, WNI).”

Polar Routeing is no longer a mere unattainable dream. We have taken the first step on the thousand-mile journey.

Weathernews would like to continue working directly with our clients toward the realization of Polar Routeing.

※Eye-Servation is a term unique to Weathernews. “Eye-Servation” is not merely the collection of facts, but also includes the way the person or the machine “feels” at the time.

